REMARKS

Claims 1-35 are currently pending in the subject application and are presently under consideration. The specification has been amended as indicated at pages 2 and 3 to overcome the Examiner's objections and to correct minor informalities. Claims 1 and 22 have been amended herein to correct minor informalities – these amendments do not narrow the scope of the claims. A listing of all claims is found at pages 4-10. No new matter has been added. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I.   Objection to Specification

Withdrawal of this objection is respectfully requested in view of the herein amendments to the specification.

II.   Rejection of Claims 1-35 Under 35 U.S.C. §102(e)

Claims 1-35 stand rejected under 35 U.S.C. §102(e) as being anticipated by Bruno *et al.* (U.S. 6,604,123). This rejection should be withdrawn for at least the following reasons. Bruno *et al.* does not teach or suggest each and every limitation recited in the subject claims.

> For a prior art reference to anticipate, 35 U.S.C. §102 requires that *"each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)) (emphasis added).

The claimed invention relates to a system and method to isolate communication contexts to facilitate communication of data. (*See e.g.*, pg. 1, lns. 5-7). The system and method is useful where user-level processes directly access hardware, such as to issue I/O requests. (*See e.g.*, pg. 2, lns. 4-5). The subject invention overcomes delays in conventional systems in which the operating system acts as an intermediary issuing the requests to the hardware *via* a corresponding communications protocol. (*See e.g.*, pg. 1, lns. 22-26).

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A.   *Independent claim 1 (and associated dependent claims)*

Independent claim 1 recites *an association between a first queue and a first communication context being provided through a privileged operation not adjustable by a user-level process.* The association determines the queue and the communication context that can communicate with each other. *(See e.g., pg. 7, lns. 3-4).* If there is not a proper association between the queue and the communication context, communication is prevented. The association is not adjustable by a user-level process. *(See e.g., pg. 7, lns. 3-4 and 15-17).*

In the Office Action, it is incorrectly asserted that Bruno *et al.* at col. 8, lns. 3-13, discloses such novel features of applicant's claimed invention. However, the cited section of the reference merely teaches that a client application issues an operating system call with parameter (e) to a privileged-mode operation. *(See e.g., col. 8, lns. 4-7).* Parameter (e) is an available location in a portal table 318. *(See e.g., col. 7, lns. 39-42).* Upon issuing the call, the portal table, using (e) as an index, jumps to the memory location indicated by the pointer in the portal table. *(See e.g., col. 8, lns. 8-10).* Thus, Bruno *et al.* in the cited section (let alone anywhere in the patent) does not teach or suggest an association between a first queue and a first communication context being provided through a privileged operation not adjustable by a user-level process, as in applicant's claimed invention. Accordingly, this rejection with respect to independent claim 1 (and the claims that depend there from) should be withdrawn.

B.   *Independent claim 14 (and associated dependent claims)*

Independent claim 14 recites *a virtual component at a first node ... and a first channel endpoint established at the first node ... wherein each ... is associated with a respective domain through a privileged operation ... communication of messages ... begin controlled based on validation of the respective domains.* The association with a domain name determines if the virtual component and the first channel endpoint can communicate with each other, and if there is not a proper association, communication is prevented. *(See e.g. pg. 7, lns. 3-4 and 15-17).* For example, for a message to be communicated the domain attributes of both the virtual component and the first channel endpoint must match. *(See e.g., pg. 3, lns. 25-28).*

As stated *supra* with regard to claim 1, Bruno *et al.* discloses a portal table 318, in a privileged-level process, having an available location (e) determined by user-level process. *(See*

e.g. col. 7, lns. 36-42; col. 8, lns. 3-13). Bruno *et al.* is silent regarding a virtual component and a first channel endpoint both established at a first node wherein each is associated with a respective domain. Accordingly, this rejection regarding independent claim 14 and the claims that depend there from should be withdrawn.

C.   *Independent claim 22 (and associated dependent claims)*

Independent claim 22 recites *validation means for validating an association between a storage means and a communication means, the storage means and the communication means being associated in a privileged operation not adjustable by user-level processes.* The storage means and communication means are associated to either allow or prohibit communication. (*See e.g.*, pg. 7, lns. 3-4 and 15-17). Bruno *et al.* does not disclosure such novel features of applicant's claimed invention. Rather, as stated *supra* with regard to claim 1, Bruno *et al.* merely discloses a user-level process that finds a memory location (e) in a portal table wherein the portal table is accessed by a privileged-mode operation.

Claim 22 also recites *storage means for receiving a message provided directly from a user-level process.* Thus, the system permits a user-level process to directly access hardware, such as a storage component. (*See e.g.*, pg. 5, lns. 28-30). Bruno *et al.* does not teach or suggest such features. Rather, Bruno *et al.* discloses that the client application must send a message *via* a portal, which is in privileged mode. (*See e.g.*, col. 8, lns. 3-13 and Figure 3). Thus, the user-level process of Bruno *et al.* is not able to provide a message directly to a hardware or storage component. Accordingly, the rejection of independent claim 22 (and its corresponding dependent claims) should be withdrawn.

D.   Independent claim 23 (and associated dependent claims)

Independent claim 23 recites *virtual storage means at a first node ... an endpoint communication means at the first node* and *upon determining a common domain membership* for the storage means and the endpoint communication means, *enabling communication between the virtual storage means and the endpoint communication means.*

Bruno *et al.* does not teach or suggest such novel features of applicant's claimed invention. Bruno *et al.* merely discloses a user-level process that invokes a privileged-level process by issuing a call with parameter (e) where (e) is an available memory location.

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Additionally, Bruno *et al.* is silent regarding a virtual storage means and an endpoint communication means both at a first node. Accordingly, the cited reference does not anticipate or make obvious applicant's invention as recited in the subject claims.

E.   *Independent claim 26 (and associated dependent claims)*

Independent claim 26 recites *in a privileged mode, setting domain membership for a queue of a first node and setting domain membership for a communication component of the first node.* The domain membership allows communication between a queue and a communication component that belong to the same domain membership. (*See e.g.* pg. 7, lns. 3-4 and 15-17). Bruno *et al.* is silent regarding setting domain membership for both a queue of a first node and a communication component. Rather, the cited reference teaches issuing a call to a privileged mode-level process to access a memory location. (*See e.g.*, col. 8, lns. 8-10).

Claim 26 also recites *...controlling communication of message between the queue and the communication component based on the domain membership set for each of the queue and the communication component ... the domain membership being inaccessible by user-level processes t.* The Office Action asserts Bruno *et al.* teaches such features at col. 7, ln. 55 through col. 8, ln. 2. However, this section of the cited reference merely discloses user-level processes that perform registration of a server and mitigating passing erroneous information. Thus, based on at least the foregoing, it is readily apparent that the cited reference does not anticipate or make obvious applicant's invention as recited in the subject claims.

F.   *Independent claim 29 (and associated dependent claims)*

Independent claim 29 recites *controlling communication of a message ... based on a domain of a storage component and a domain of a local communications component.* As noted above, Bruno *et al.* is silent regarding associating both a storage component and local communications component with a domain. Rather, the portion of Bruno *et al.* referenced in the Office Action sumply discloses a client application that invoke a server by issuing an operating system call with parameter (e). (*See e.g.* col. 8, lns. 3-6). The processor then switches into privileged mode to perform a lookup to a portal table using (e) as an index and jumps to that memory location. (*See e.g.*, col.8, lns. 6-11). Therefore, Bruno *et al.* does not teach or suggest

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all limitations recited in the subject claims and this rejection should be withdrawn and the subject claims allowed.

Conclusion

In view of the foregoing comments, it is respectfully submitted that Bruno *et al.* does not anticipate applicant's invention as recited in claims 1-35; and this rejection should be withdrawn.

Accordingly, the present application is believed to be in condition for allowance, and a prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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